

### REMARKS

Claim 18 has been canceled. Claims 1, 5 and 9 have been amended. Claims 1, 4, 5, 8-10, 12 and 19-20 remain for further consideration. No new matter has been added.

The rejections shall be taken up in the order presented in the Official Action.

**2-3.** Claim 18 stands rejected under 35 U.S.C. §112, first paragraph.

Claim 18 has been canceled.

**4-5.** Claims 5 currently stands rejected under 35 U.S.C. §112, second paragraph.

Claim 5 has now been amended to depend from claim 1.

**6-7.** Claims 1, 8-9, 12, 18-19 currently stand rejected for allegedly being obvious in view of EP 380 163 (hereinafter "the '163 Application") in combination with the subject matter disclosed in DE 2 803 708 (hereinafter "the '708 Application").

Claim 1 recites a method of applying syntactic foam insulation to a length of steel pipe configured for use as a component in a sub-sea pipeline. The method includes the steps of co-extruding an inner syntactic foam insulator and an outer thermoplastic protective cover around the length of steel pipe, and then solidifying the thermoplastic protective cover.

It is recognized that the '163 Application does not disclose the use of a thermoplastic material and air cooling. It is then alleged that a skilled person at the time of the present invention would have replaced the thermosetting material disclosed in the '163 Application, with thermoplastic material as disclosed in the '708 Application (Official Action, pg. 5).

The '708 Application discloses producing a flexible, laminated insulating pipe (see Derwint Basic Abstract, 1<sup>st</sup> sentence). FIGs. 1 and 3 of the '708 Application illustrate the flexible, laminated insulating pipe 2 is wound around a cylindrical carrier 14. Hence, the insulated pipe disclosed in the '708 Application is of course flexible enough to be wrapped around the cylindrical carrier 14.

Claim 1, as amended, recites a method of applying syntactic foam insulation to length of steel pipe. A length of steel pipe is of course rigid, and not flexible enough to be wound around a circular carrier as illustrated in FIGs. 1 and 3 of the '708 Application. A person working in the field of the present invention (i.e., syntactic foam insulated pipelines) would not look to the field of the '708 Application, since it relates to flexible, insulated plastic tubing rather than insulated pipelines that include a rigid pipe (e.g., steel) coated with syntactic foam as set forth in claim 1. As a result, a skilled person in the field of insulated pipelines would not be motivated to combine the subject matter of the '163 Application, which employs a steel inner pipe, with the subject matter disclosed in the '708 Application, since the '708 Application merely discloses a flexible, laminated, insulated pipe.

*"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination."* In re Geiger, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987). *"Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, '[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.'"* In re Laskowski, 10 U.S.P.Q.2d 1397, 1398 (Fed. Cir. 1989), citing In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). In addition, *"[w]hen the incentive to*

*combine the teachings of the references is not readily apparent, it is the duty of the examiner to explain why the combination of the reference teachings is proper.*" Ex parte Stone, 2 U.S.P.Q.2d 1788, 1790 (Bd. App. & Int'f 1986) (emphasis added).

As noted above, it is fundamental that obviousness can not be established absent some teaching to combine the references, or a suggestion or incentive supporting the combination of references. See In re Geiger, at 1278 (Fed. Cir. 1987). In the instant case the Official Action is lacking the necessary factual, non-conclusionary explanation why the combination of the '163 Application and the '708 Application is proper. Specifically, there is no proper suggestion of record in the Official Action regarding why these references are properly combinable. The Official Action recites that a skilled person would have combined the references since they both teach the use of a three layered insulated pipes, and the '708 Application teaches the use a thermoplastic outer layer. However, there is simply no suggestion or reason of record why a skilled person would replace the thermosetting resin outer layer disclosed in the '163 Application with the thermoplastic outer layer of the '708 Application. The Official Action merely contends that it is conventionally known to use a thermoplastic outer layer. (Official Action, page 5, line 6). Hence, it is respectfully submitted that a prima facie case of obviousness has not been presented since there is no proper teaching, suggestion or incentive that would lead one of ordinary skill in the art to modify the subject matter disclosed in the '163 Application based upon the teaching of the '708 Application to create the claimed invention.

It is alleged in the Official Action that the '708 Application is at least reasonably pertinent to the field of the claimed invention, and thus combinable with the subject matter disclosed in the '163 Application. However, it is respectfully submitted that the contention about the '708 Application is based upon an overly broad, and improper construction of the term

*reasonable*. The requirement that the reference be reasonably pertinent is not the same as saying that the pertinence must not be completely unreasonable. It is well known that a prior art reference must be read as a whole when considering patentability. In the case of the '708 Application, the subject matter disclosed therein is not reasonably pertinent to the field of the invention since it simply relates to flexible, non-metallic pipe. Such a pipe is not suitable for use as a component in a sub-sea pipeline. Claim 1 has been amended to recite that the pipeline is configured for use as a component in a sub-sea pipeline. Flexible lengths of pipe as disclosed in the '708 Application can not be considered reasonably pertinent to the field of manufacturing a length of insulated pipe for use in a sub-sea pipeline. Accordingly, it is respectfully submitted that the subject matter recited in claim 1 is patentable over the combined subject matter disclosed in '163 Application and the '708 Application.

Claim 9 has also been amended, and is patentable for at least all the same reasons as claim 1.

Claim 9 recites a method of forming an insulating product for use as a component of a sub-sea pipeline. The method includes the steps of:

“co-extruding an inner syntactic foam insulator and an outer thermoplastic protective cover; and  
solidifying said thermoplastic protective cover.” (cl. 9).

This preform may then be used at a later time to insulate a pipe. Specifically, new claim 19 dependent from claim 9, recites reheating the insulating product and insulating a pipe with the

reheated insulated product. A fair and proper reading of both the '163 Application and the '708 Application indicates that neither application discloses such a re-heating step.

6. Claims 1, 8-9 and 12 currently stand rejected for allegedly being obvious in view of the '163 Application in combination with the subject matter disclosed in JP 62-28222 (hereinafter "the '222 Application").

A skilled person would not be motivated to combine the subject matter disclosed in the '163 Application with the subject matter disclosed in the '222 Application. As set forth above, the field of the present invention is syntactic foam insulated pipelines. The '222 Application simply relates to a plastic pipe formed by a laminate of three materials. As shown in FIG. 1, materials 16-18 are extruded to form a pipe - they are not extruded around a pipe. In addition, the '222 Application does not relate to the field of syntactic foam insulated pipelines. The '222 Application simply relates to the field of plastic pipes that include *non-syntactic* foam within inner and outer thermoplastic layers. Therefore, it is respectfully submitted that a skilled person working in the field of syntactic foam insulated pipelines would not be motivated to combine the subject matter disclosed in the '163 Application and the '222 Application.

Claims 1 and 9 have been amended to recite that the resultant product suitable for use as a component in a sub-sea pipeline. It is respectfully submitted that the '222 Application is not reasonably pertinent to this field of endeavor.

7. Claims 4-5 and 10 currently stand rejected for allegedly being obvious in view of the '163 Application in combination with the subject matter disclosed in of the '708 Application, further in combination with the subject matter disclosed in U.S. Patent 4,773,448 to Francis (hereinafter "Francis").

It is respectfully submitted that this rejection is now moot since claims 1 and 9 are patentable for at least the reasons set forth above.